

Paracolletes metallicus (Smith).

Males. Waipara, New Zealand, Nov. 21 (*Brittin*).

Halictus aerarius, Smith.

Males from Kobe, Japan (*Baker*).

Chelynia elegans (Cresson).

Estes Park Village, Colorado, June (*Hazel Andrews*).

Osmia pentstemonis, Cockerell.

Peaceful Valley, Colorado, at flowers of *Pentstemon*,
July 5 (*Cockerell*).

Osmia hendersoni, Cockerell.

Tolland, Colorado.

BIBLIOGRAPHICAL NOTICE.

Life and Letters of Sir Joseph Dalton Hooker, O.M., G.C.S.I.
Based on Materials collected and arranged by Lady Hooker.
[With nine] Portraits and Illustrations. By LEONARD HUXLEY,
author of 'Life and Letters of T. H. Huxley,' etc. London:
John Murray, 1918. 2 vols. 8vo. i., pp. xi, 546; ii., vii, 569.
36s. net.

AMONGST the methods of writing a biography there are two which are pre-eminent—one, the strictly chronological, which leads the reader along as the subject lived, and enables him to trace the influences which moulded the life as they occurred, and the other, which may be termed the episodic method—by describing certain episodes of the life, and treating them fully, disregarding any overlapping of dates. The present work is largely on the second plan, probably wisely chosen, but having the disadvantage of rendering the sequence of dates at times somewhat difficult to follow.

Born in 1817 at Halesworth, Suffolk, of parents and grandparents of Norfolk birth, and having a botanical atmosphere from his early days, the future Sir Joseph Hooker passed his boyhood, University career, and early training in Glasgow. Four years on H.M.S. 'Erebus' in Antarctic Seas were followed by service on the Geological Survey as botanist, and then came a still more important journey in India, particularly amongst the Himalayas in Sikkim. Here his work was so thorough that, besides his large collection of plants and seeds, the map of Sikkim which he plotted proved of invaluable help to the British military expedition of 1903.

Ten years as assistant to his father, the Director of the Royal Botanic Gardens, Kew, were followed by twenty more as Director, and then by twenty-six of busy scientific labours unshackled by the claims of official administration, until that December day in 1911 when he was laid to rest beside his father in the churchyard on Kew Green, a veteran of 94 years, full of honours, with a splendid record of work.

His published works are proof of the power he possessed of pursuing his purposed path, in spite of absorbing official duties as head of the great national botanic institution, which owes so much to the two Hookers.

Where so much was accomplished it is hard to select for mention, but we may instance the six quarto volumes on the material brought home from the Southern Seas, 'Flora Antarctica,' 'Flora Novæ Zealandiæ,' and 'Flora Tasmaniæ,' 1844-60. Here we have not merely an enumeration of the plants, but in the 'Flora Tasmaniæ' we find a luminous exposition of distribution in space and time prefixed to the enumeration. His 'Himalayan Journals,' 1854, form a fascinating record of his travels and captivity in that region. A faculty he possessed in singularly large measure, of methodizing facts and putting them into a convincing and lucid form, even on a small scale, and we note how he rapidly seized the important characters of plants and so described them, that his writings are readily utilized.

His masterly survey of Arctic plants (1861) shows how keen he was on questions of distribution, and his account of the plants of the Galapagos Islands (1849), both in the Linnean Society's 'Transactions,' confirm this statement.

With Dr. Thomas Thomson (1817-78) he essayed a 'Flora Indica,' 1855, but the experience gained in producing the single volume issued showed him that a work conceived on that scale was impossible of production. 'The Flora of British India,' therefore, was planned on a more modest scale, and with other Indian botanists to help by undertaking assigned portions. The soundness of this procedure was proved by the finishing of this enumeration in seven octavo volumes, 1872-1897, an event marked by the striking and presentation of a gold medal by the Linnean Society in 1898.

The 'Genera Plantarum,' 1862-83, which was worked up chiefly from material at Kew, in conjunction with George Bentham, was a monumental production, in which both of those distinguished phytographers contributed their ripe experience; it differed from its predecessors by being based upon actual examination of authenticated specimens or actual types, and was not merely literary compilation. The last big work on which Hooker started to engage was that termed 'Index Kewensis,' which occupied thirteen years and a half from first to last. It was due to Charles Darwin, who induced Sir Joseph Hooker to get the work undertaken; he approved the plan submitted by the actual compiler, and acted as the channel by which the needful funds were received from Mrs. Darwin. As the work progressed and became available for

reference, Hooker's interest in it increased, and finally he went through the MS. to revise the geographical notes and read the proofs. Unluckily Mr. Darwin himself died within three months of the undertaking being put in hand.

With this activity in botanical publication, Hooker's influence in other directions must not be overlooked. He was Darwin's confidant for fifteen years before evolution was brought before the scientific world in July 1858. He spent five years as President of the Royal Society, 1873-78, with its consequent numerous committees, and served on the Council of the Linnean Society almost uninterruptedly from 1846 to 1884, and was Vice-President from 1861 to 1876 and 1882 to 1884, though he declined the Presidency in 1886, after his retirement from Kew.

Such is a rapid outline of Hooker's life, which is treated in detail in the two volumes before us. Mr. Leonard Huxley is well qualified as the biographer, being the eldest son of Prof. T. H. Huxley, F.R.S., Hooker's intimate friend, and, although it is not declared, is the godson mentioned on page 59 of the second volume. With the material already arranged by Lady Hooker, the connecting text became manageable, otherwise the bulk available might have proved insuperable.

Many portraits are extant, in various media; that reproduced as the frontispiece to the first volume is, perhaps, the least satisfactory, Hooker himself pronouncing it "lackadaisical," the very word the present writer had always applied to it.

In so long a work it is not surprising that slips occur—some due to the printer, but not all. Here are a few, which should be corrected in a second issue. The "S. J. Klotzsch" mentioned in the note in vol. i. p. 25 was Johann Friedrich Klotzsch (1805-60). The name "Osmanthus" on page 367 of the same volume must be meant for "Osmothamnus." What was the date of the letter cited? It must have been after 1882, when *Rhododendron anthopogon* was printed in the 'Flora of British India,' with *Osmothamnus fragrans* and *O. pallidus* as synonyms.

In the second volume, on page 247, line 23, the name should read Maingay, and p. 447, *Mougeotii* and *Mnium*; while such slips as "splendid" and "Penquins" are simple press errors.

There are two Cunninghams curiously confused in the Index, ii. p. 527; in vol. ii. David Douglas Cunningham (1843-1914) is referred to on p. 427, note, but his brother Robert Oliver Cunningham (1841-1918) on p. 80, and 101, note.

We close the volumes, which have recalled the memory of many vanished botanists, with gratitude to the writers whose labours have done so much to place on permanent record the great and strong personality which Hooker's surviving contemporaries must always remember with pleasure. It was indeed their good fortune to have been associated with so commanding a figure. B. D. J.